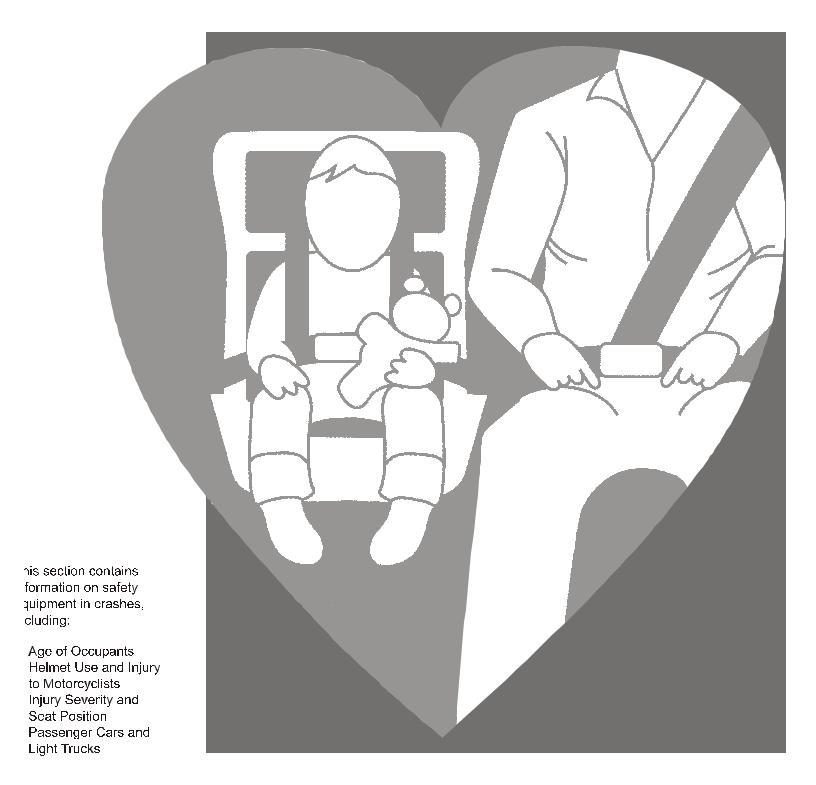
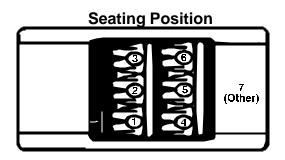
VII. SAFETY EQUIPMENT



Safety Equipment Use in Passenger Cars by Injury Severity and Seat Position

					Seat Po	sition	by Safet	y Equi	ipment l	Jse						
	1		2		3		4		5		6		7		тот	AL
Injury Severity	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Not Injured	103,569	5,405	761	77	25,320	1,677	7,008	508	2,804	232	8,499	632	1,559	97	149,520	8,628
Incapacitating	1,644	873	7	9	470	313	61	55	23	28	70	76	10	9	2,285	1,363
Nonincapacitating	6,266	1,996	44	20	1,733	810	269	140	95	65	369	179	44	19	8,820	3,229
Possible	17,020	1,887	173	33	4,949	861	843	184	286	74	1,030	238	138	29	24,439	3,306
Killed	133	210	0	0	48	49	2	10	3	5	9	10	1	0	196	284
TOTAL	128,632	10,371	985	139	32,520	3,710	8,183	897	3,211	404	9,977	1,135	1,752	154	185,260	16,810



Safety Equipment Use in Passenger Cars in Crashes by Age of Occupant

Age of Occupant	Shoulder & Lap Belt	Lap Belt Only	Shoulder Belt Only	Child Safety Seat	None	TOTAL
1-2	341	77	19	2,399	92	2,928
3	408	90	3	878	59	1,438
4	708	141	5	557	39	1,450
5-9	4,643	662	41	457	283	6,086
10-14	5,957	553	47	0	619	7,176
15	2,655	131	20	0	395	3,201
16	8,470	178	60	0	929	9,637
17	8,998	143	70	0	1,221	10,432
18	7,836	123	64	0	1,288	9,311
19	6,714	101	49	0	1,033	7,897
20	5,837	83	43	0	867	6,830
21	5,440	77	44	0	910	6,471
22	4,860	67	29	0	736	5,692
23	4,352	42	38	0	586	5,018
24	3,786	43	38	0	471	4,338
25-34	28,424	275	188	0	2,718	31,605
35-44	26,318	203	165	0	1,787	28,473
45-54	20,688	137	134	0	1,136	22,095
55-64	11,665	86	64	0	556	12,371
65-74	7,815	38	67	0	353	8,273
75-84	6,112	31	55	0	311	6,509
85 & over	1,449	8	3	0	93	1,553
Unknown	1,500	87	12	1,359	328	3,286
TOTAL	174,976	3,376	1,258	5,650	16,810	202,070

These reports count only those occupants for whom safety equipment use and seat location were recorded on the accident report form. Caution: Safety equipment use for many occupants was self-reported. Therefore, these figures may overstate actual use of safety equipment. Yes = used safety belts or child safety seat. No = no safety equipment used.

Safety Equipment Use in Light Trucks by Injury Severity and Seat Position

					Seat Pos	sition	by Safety	/ Equi	pment U	Jse					-	
	1		2		3		4		5		6		7		тот	AL
Injury Severity	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Not Injured	21,834	1,558	434	93	4,345	363	449	26	237	19	619	35	55	11	27,973	2,105
Incapacitating	245	235	3	10	48	76	3	2	0	4	4	2	1	0	304	329
Nonincapacitating	1,074	462	21	22	231	148	17	5	10	7	31	13	1	0	1,385	657
Possible	2,140	409	46	29	534	131	37	12	20	9	56	18	9	4	2,842	612
Killed	12	64	0	1	3	12	0	0	0	0	0	0	0	0	15	77
TOTAL	25,305	2,728	504	155	5,161	730	506	45	267	39	710	68	66	15	32,519	3,780

This report counts only those occupants for whom safety equipment use and seat location were recorded on the accident report form. Caution: Safety equipment use for many occupants was self-reported. Therefore, these figures may overstate actual use of safety equipment. Yes = used safety belts or child safety seat. No = no safety equipment used.

Safety Equipment Use in Light Trucks in Crashes by Age of Occupant

Age of Occupant	Shoulder & Lap Belt	Lap Belt Only	Shoulder Belt Only	Child Safety Seat	None	TOTAL
1-2	29	10	1	160	5	205
3	30	14	2	61	4	111
4	64	15	2	40	5	126
5-9	491	87	3	38	38	657
10-14	666	69	5	0	83	823
15	300	18	3	0	61	382
16	901	25	4	0	153	1,083
17	1,023	23	7	0	197	1,250
18	952	11	3	0	193	1,159
19	917	12	12	0	199	1,140
20	886	8	5	0	165	1,064
21	777	6	7	0	183	973
22	847	14	4	0	163	1,028
23	722	5	9	0	124	860
24	712	7	3	0	114	836
25-34	6,070	37	47	0	696	6,850
35-44	6,573	46	41	0	635	7,295
45-54	4,821	34	42	0	394	5,291
55-64	2,585	20	20	0	176	2,801
65-74	1,243	6	11	0	92	1,352
75-84	506	6	3	0	58	573
85 & over	75	1	0	0	13	89
Unknown	212	13	6	91	29	351
TOTAL	31,190	474	234	299	3,751	35,948

This report counts only those occupants for whom safety equipment use and seat location were recorded on the accident report form. Caution: Safety equipment use for many occupants was self-reported. Therefore, these figures may overstate actual use of safety equipment. Yes = used safety belts or child safety seat. No = no safety equipment used.

Passenger Car and Light Truck Occupants for Whom Airbag Deployed in Crash -Manner of Collision by Injury Severity

			Injury Severity			
Manner of Collision	Killed	Incapacitating	Non-incapacitating	Possible	Not Injured	Total
Angle	57	422	1,420	2,099	2,881	6,879
No collision with vehicle in transit	77	403	1,185	1,196	2,524	5,385
Rear end	8	121	452	710	2,038	3,329
Head on	35	175	255	329	358	1,152
Side swipe opposite	8	33	112	126	182	461
Side swipe same	5	18	67	104	225	419
Rear to rear	0	1	6	10	11	28
Unknown	0	21	58	91	333	503
TOTAL	190	1,194	3,555	4,665	8,552	18,156

This table does not take into account whether or not the person was using a safety belt at the time of the crash.

Safety Equipment Use on Motorcycles by Injury Severity and Seat Position

				Seat Posi	tion by Sa	afety Equi	pment Use			
			Driver				P	assenge	er	
Injury Severity	Helmet Worn	Eye Protection	None	Unknown	Total	Helmet Worn	Eye Protection	None	Unknown	Total
Not Injured	104	130	58	98	390	9	19	10	3	41
Incapacitating	140	203	127	32	502	18	36	18	4	76
Nonincapacitating	302	385	173	60	920	33	52	36	7	128
Possible	126	121	60	40	347	20	14	16	4	54
Killed	12	35	20	3	70	2	3	1	1	7
TOTAL	684	874	438	233	2,229	82	124	81	19	306

				Seat Posi	tion by Sa	fety Equip	pment Use			
		,	Side Car					TOTAL		
Injury Severity	Helmet Worn	Eye Protection	None	Unknown	Total	Helmet Worn	Eye Protection	None	Unknown	Total
Not Injured	0	0	0	0	0	114	149	68	101	432
Incapacitating	0	0	0	0	0	158	239	145	36	578
Nonincapacitating	0	1	0	0	1	335	438	209	67	1,049
Possible	0	0	0	0	0	146	135	76	44	401
Killed	0	0	0	0	0	15	38	21	4	78
TOTAL	0	1	0	0	1	768	999	519	252	2,538

This report counts only those motorcyclists for whom seat location was recorded on the accident report form.

Motorcyclists Injured by Age and Role by Safety Equipment Use

I				Driver				Pas	Passenger				Sid	Side Car				Ĭ	Total		
7	Age	Helmet Wom	Eye Protect	None	Unk	Total	Helmet Wom	Eye Protect	None	Unk	Total	Helmet Wom	Eye Protect	None	Unk	Total	Helmet Wom	Eye Protect	None	Unk	Total
וי	Under 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
u)	5-9	0	0	0	0	0	9	1	0	0	7	0	0	0	0	0	9	1	0	0	7
1	10-14	1	1	1	0	8	7	П	0	1	6	0	0	0	0	0	∞	2	П	1	12
П	15	0	0	1	0	-	8	1	0	0	ю	0	0	0	0	0	7	1	1	0	4
_ 20	16	က	1	8	1	∞	0	2	0	0	7	0	0	0	0	0	က	8	8	1	10
02	7	10	2		0	13	0	1	8	0	4	0	0	0	0	0	10	8	4	0	17
_	8.	20	10	4	1	35	7	4	0	0	9	0	0	0	0	0	83	14	4	1	41
	6]	14	17	∞	9	45	7	4	9	0	12	0	0	0	0	0	16	21	14	9	22
	20	24	18	∞	3	53	0	7	П	2	10	0	0	0	0	0	24	53	6	5	83
	21	78	19	8	2	71	1	1	2	0	4	0	0	0	0	0	83	8	24	2	75
	22	22	13	∞	7	20	1	က	4	0	∞	0	0	0	0	0	83	16	12	7	82
∾ FFIC	23	17	6	10	5	41	1	9	0	0	7	0	0	0	0	0	18	15	10	2	48
	24	18	14	14	4	55	1	-	П	0	က	0	0	0	0	0	19	15	15	4	23
	25-34	110	166	88	33	397	4	16	8	4	4	0	0	0	0	0	114	182	106	88	441
	35-44	122	222	107	41	492	13	83	18	4	64	0	0	0	0	0	135	251	125	45	226
	45-54	117	149	99	83	357	18	17	∞	3	46	0	1	0	0	-	135	167	11	55	404
	55-64	50	53	15	4	122	6	4	4	0	17	0	0	0	0	0	20	22	19	4	139
v	65-74	11	∞	3	0	22	2	2	0	0	4	0	0	0	0	0	13	10	8	0	56
	75-84	1	9	0	П	∞	0	0	0	0	0	0	0	0	0	0	П	9	0	1	8
~	85 and over	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Unknown	0	1	0	0	1	2	2	3	1	8	0	0	0	0	0	2	3	3	1	6
ן כי	TOTAL	268	602	360	132	1,769	71	102	20	15	258	0	1	0	0	1	633	812	430	147	2,028
「山 之 103	Eye Protect = eye protection Unk = unknown Note: This report counts only those motorcyclists for whom seat location was known.	= eye pro eport cou	tection nts only	U those rr	Ink = ur	Unk = unknown motorcyclists for	whom se	at locati	ion was	knowi	c'										
,																					

Motorcyclists Killed by Age and Role by Safety Equipment Use and Gender

								2	5	, יי	daiety Equipment ose	5	5		ב ב			_									
				Dr	Driver						Pa	Passenger	ger								Total	al					
	Hel	Helmet Worn	Eye Protection	e ction	No Protect	No Protection	Unknown	nwc	Helmet Worn		Eye Protection	-	No Protection	ļ	Unknown		Helmet Worn	Vorn	Eye]	Eye Protection	tion	No P	No Protection	ion	Unk	Unknown	
Age	Σ	Ŧ	M	Ъ	M	Ŧ	Σ	ъ	M	H.	M F		M	Г	M F	Σ	П	Tot	M	ᄺ	Tot	M	표	Tot	Σ	F	Tot
10-14	0	0	0	0	0	0	0	0	0	0	0		0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0		0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0		0 0		0	0	0 1	0	0	0	0	0	0	0	0	0	0	1	1
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	1	0	0	0	-	0	0	0	0 0		0		0 0	0	0	0	-	0	П	0	0	0	П	0	1
19	П	0	0	0	-	0	0	0	0	0	0 0		0	0	0 0	-	0	1	0	0	0	-	0	-	0	0	0
20	0	0	0	0	0	0	0	0	0		0 0		0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0		0 0		0		0 0	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	2	0	0	0	0		0 0		0	0	0 0	0	0	0	0	0	0	8	0	7	0	0	0
83	7	0	0	0	0	0	0	0	0	0	0 0		0	0	0 0	2	0	7	0	0	0	0	0	0	0	0	0
24	-	0	0	0	П	0	0	0	0	0	0 0		0	0	0 0	-	0	1	0	0	0	П	0	-	0	0	0
25-34	0	0	2	0	8	0	0	-	0		0 0		0	0	0 0	0	0	0	2	0	2	8	0	3	0	1	1
35-44	0	0	10	0	2	1	0	П	0	0	0 0		0		0 0	0	0	0	10	0	10	5	7	7	0	1	_
45-54	က	0	16	7	4	0	0	0	0	0	0 3		0	0	0 0	8	0	2	16	2	21	4	0	4	0	0	0
55-64	4	1	П	0	0	0	0	0	0		0 0		0	0	0 0	4	0	9	П	0	1	0	0	0	0	0	0
65-74	0	0	0	0	0	0	0	0	0	0	0 0		0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0
75-84	0	0	0	0	1	0	0	0	0	0	0 0		0	0	0 0	0	0	0	0	0	0	1	0	1	0	0	0
TOTAL	11	1	33	2	19	1	1	2	0	2	0 3	~	0	1	0 1	11	4	15	33	2	38	19	2	21	1	3	4
-1		L	1	1	F	1	<u> </u>													ĺ							

M = male F = female Tot = total
This portrayal is only of cyclists with known seat location.

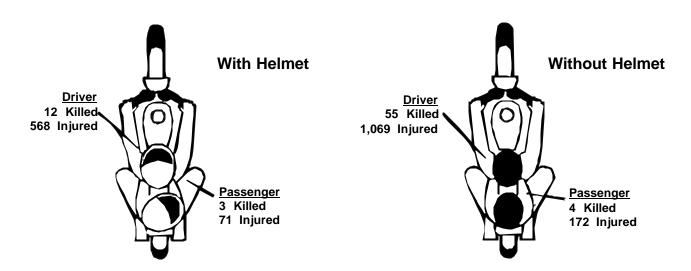
Occupants and Injury Severity by Seating Position and Safety Equipment Use

Passenger Cars and Light Trucks

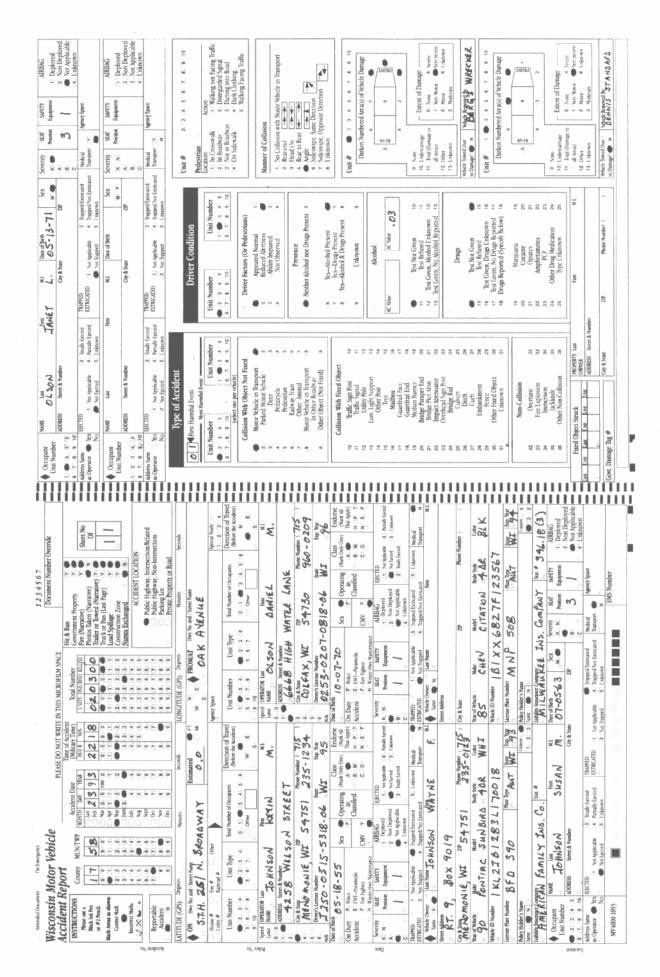
With Safety Equipment Without Safety Equipment Seat 2 Seat 2 1 Killed 3 Killed **Driver** 285 Injured Driver 142 Injured 144 Killed 252 Killed Seat 3 27,887 Injured Seat 3 6.007 Injured 39 Killed 58 Killed 7,970 Injured 2,538 Injured Seat 5 Seat 5 3 Killed 5 Killed 422 Injured 183 Injured Seat 4 Seat 4 Seat 6 Seat 6 6 Killed 8 Killed 2 Killed 13 Killed 1,236 Injured 388 Injured 1,677 Injured 526 Injured Seat 7 Seat 7 2 Killed 0 Killed 241 Injured 58 Injured

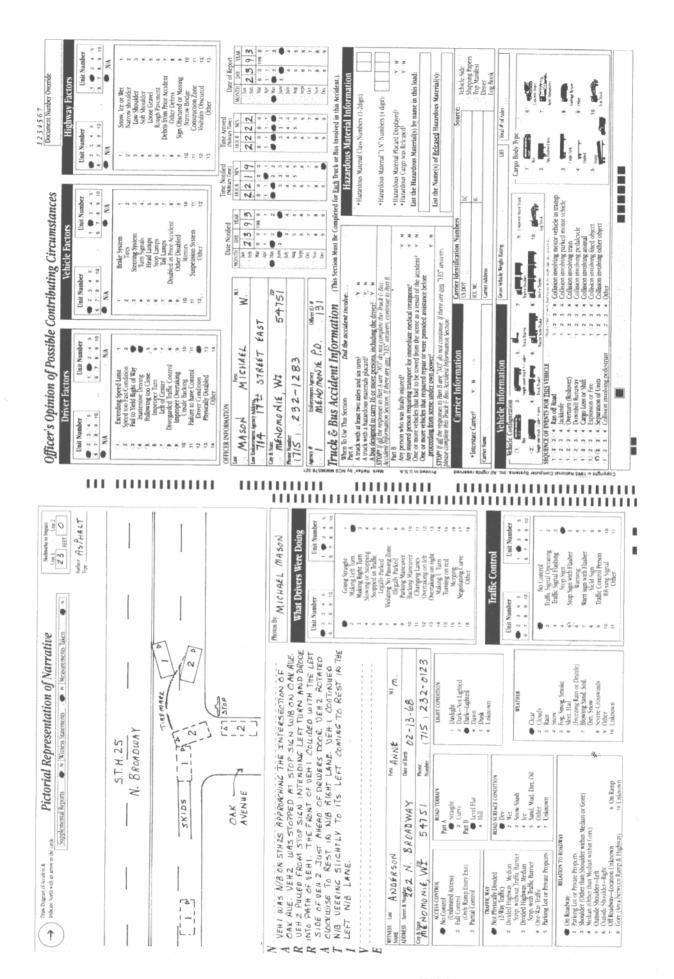
These numbers count only those occupants for whom safety equipment use and seat location were reported on the accident report form. Seat 7 includes miscellaneous seat positions such as third row seats in cars and vans. Note that use of safety equipment is often self-reported on the crash report form and may not reflect actual use.

Motorcycles



These numbers include only those motorcyclists whose safety equipment use was reported on the crash report form. Use of safety equipment is often self-reported and may not reflect actual use. Without Helmet includes those cases where safety equipment was Eye Protection Only.





Glossary of Terms

ALCOHOL-RELATED CRASH - Either a driver, bicyclist or pedestrian is listed on a police or coroner report as drinking alcohol before the crash.

ALCOHOL-RELATED FATALITY - A person who died within 30 days as a result of a traffic crash involving alcohol.

ALCOHOL CONCENTRATION (AC) TEST - A test to determine the level of alcohol in a person's blood-stream. In Wisconsin, the limit of .10 equals an alcohol level of 1 part per thousand.

COLLISION CRASH - A motor vehicle crash other than an overturning incident in which the first harmful event is a collision of a road vehicle in transport with another motor vehicle, other property, or pedestrians.

CRASH - An occurrence that originates or terminates on a traffic way, that involves at least one motor vehicle in transport and results in injury or death to any person, or damage to any property. This includes acts by the operators of motor vehicles that contribute to the cause of a crash regardless of physical contact and, for the purpose of ch. 344, WI Stats, (Safety Responsibility Program), includes intentional acts.

CRASH RATE - The number of crashes per 100 million vehicle miles traveled.

CRASH SEVERITY

Fatal Crash - A motor vehicle traffic crash in which one or more persons were killed.

Injury Crash - A motor vehicle traffic crash involving one or more persons who were physically harmed or who complained of physical harm but were not killed.

Property Damage Crash - A motor vehicle traffic crash involving property damage and no injury or death.

CRASH TYPE -The category that best describes the general type of collision which was the first harmful event, that is, the first occurrence of injury or damage.

DRIVER/OPERATOR - The occupant of a vehicle who is in actual physical control of a vehicle in transit or, for an out-of-control vehicle, the occupant who was in control before control was lost.

FATALITY RATE - The number of persons killed per 100 million vehicle miles traveled.

FIRE-RELATED CRASH - Combustion, explosion or burning of a unit related to a motor vehicle crash regardless of whether a collision occurs.

FIRST HARMFUL EVENT - The first occurrence of injury or property damage in a motor vehicle crash.

HAZARDOUS MATERIAL SPILLAGE - A load spilled from a cargo-carrying vehicle that is considered dangerous or involves risk.

INJURY SEVERITY

Fatal Injury (K Injury) - An injury received in a traffic crash that results in death within thirty (30) days of the crash.

Incapacitating Injury (A Injury) - An injury, other than fatal, that prevents walking, driving, or performing other activities that were performed before the crash.

Nonincapacitating Injury (B Injury) - An injury, other than fatal or incapacitating, that is evident at the scene. Evidence includes known symptoms.

Possible Injury (C Injury) - Any injury that is not evident at the scene but that is claimed by the individual or suspected by the law enforcement officer.

INTERSECTION - An area that contains a crossing or connection of two or more roadways not classified as driveway access and within the prolongation of the lateral curb lines. If no curb exists, it is the area within the extension of the lateral boundary lines of the roadway of two joined traffic ways.

INTERSECTION-RELATED - A crash resulting from an activity, behavior, or traffic control that affects a unit's movement in relation to an intersection, whether or not the point of origin or first harmful event occurred within the intersection.

MOTOR VEHICLE - A self-propelled vehicle, including trailers and semitrailers designed for use with such vehicles. This does not include farm tractors, implements of husbandry, road machinery, well drillers or snowmobiles which are classified as equipment. (See UNIT TYPE.)

MOTOR VEHICLE IN TRANSPORT - A motor vehicle in operation (i.e. not parked).

MOTOR VEHICLE IN TRANSPORT IN OTHER

ROADWAY - A collision of a vehicle with another vehicle after crossing a separation area between two parallel roadways (e.g. vehicle left freeway and hit another vehicle on a frontage road).

NON-COLLISION CRASH - Any motor vehicle crash other than a collision crash, including explosion of any part of the motor vehicle, fire starting in the motor vehicle, overturning, immersion, vehicle struck by a flying object, etc.

OCCUPANT - Any person who is in or upon a vehicle, including the driver, passenger, and persons riding on the outside of the vehicle.

PASSENGER - Any occupant of a vehicle who is not the driver.

POINT OF ORIGIN - The location point where a crash begins from an activity affecting a unit's movement.

REPORTABLE CRASH - A crash resulting in injury or death of any person, any damage to government-owned non-vehicle property to an apparent extent of \$200 or more, or total damage to property owned by any one person to an apparent extent of \$1,000 or more. (This definition went into effect 1/1/96. See page 2.)

ROLE - The function of the person at the time of the crash, such as: driver, owner, passenger, injured property owner, bicyclist, or pedestrian.

RURAL CRASH - A crash that occurred in an unincorporated area or in an incorporated area with a population under 5,000.

SPEED-RELATED CRASH - A crash where at least one driver involved in the crash received a citation for speeding, or was listed on the accident report as "exceeding speed limit" or "speed too fast/conditions."

TRAFFIC WAY - Premises open to the public as a matter of right or custom for use of their motor vehicles whether the premises are publicly or privately owned.

UNIT TYPE - A way of identifying a road vehicle or a pedestrian involved in a crash. There are seven general categories of unit type:

Auto - Passenger car, police car, ambulance, etc.

Truck - Utility truck, straight truck, fire truck, truck tractor (not attached, semi attached, double bottom), motor home, etc.

Motorcycle - Motorcycle, moped, motor scooter, etc.

Bus - School bus, passenger bus, etc.

Equipment - Farm tractor and other self-propelled farm equipment, other working machines (e.g., forklift, grader, end loader, etc.), railroad train, snow plow, snowmobile, all-terrain vehicle, and miscellaneous.

Bicycle - Every non-motorized device propelled by the feet acting upon the pedals including unicycles, bicycles, tricycles, etc.

Pedestrian - Any person afoot (or using assistive devices). This includes someone getting on or off a vehicle.

URBAN CRASH - A crash that occurred within the limits of an incorporated area having a population of 5,000 or more.

VEHICLE MILES - The estimated total number of annual miles traveled by motor vehicles on Wisconsin highways and roadways.

VEHICLE TYPE - A way of further classifying a unit type by vehicle use and registration.

WORK ZONE - The area between the first advance warning sign and the point beyond the utility or construction work area where traffic is no longer affected.

WORK ZONE-RELATED - A crash that results from an activity, behavior, or traffic control related to a work zone but not necessarily within it.

Cover designed by Shirley Paar, Accident Records Unit, Traffic Accident Section, Division of Motor Vehicles, Department of Transportation.

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Most of the data in this book came from the DOT/DMV Traffic Accident Database, which compiles data recorded on the MV4000 Wisconsin Motor Vehicle Accident Report by state and local law enforcement agencies.